SEQUENCE LISTING

<110	W.	illi	n, A amso Shen	n, M	ark											
<120)> CI	HK1 /	AND	USES	THE	REOF										
<130)> 0.	7334	/128	001												
<140> US 09/340,264 <141> 1999-06-30																
<160)> 5															
<170> FastSEQ for Windows Version 4.0																
<212	l> 18 2> Di	AV	sapie	ens						٠		,				
	L> _. CI		(1	462)												
<40(ggcd		cag 1	teeg	ccga	gg to	gete	ggtg	g agt							tg gaa al Glu	55
gac Asp	tgg Trp	gac Asp 10	ttg Leu	gtg Val	caa Gln	acc	ctg Leu 15	gga Gly	gaa Glu	ggt Gly	gcc Ala	tat Tyr 20	gga Gly	gaa Glu	gtt Val	103
caa Gln	ctt Leu 25	gct Ala	gtg Val	aat Asn	aga Arg	gta Val 30	act Thr	gaa Glu	gaa Glu	gca Ala	gtc Val 35	gca Ala	gtg Val	aag Lys	att Ile	151
Val	Asp	Met	Lys	Arg	Ala	Val	gac Asp	Cys	Pro	Glu	Asn	att Ile	aag Lys	aaa Lys	gag Glu 55	199
atc Ile	tgt Cys	atc Ile	aat Asn	aaa Lys 60	atg Met	cta Leu	aat Asn	cat His	gaa Glu 65	aat Asn	gta Val	gta Val	aaa Lys	ttc Phe 70	tat Tyr	247
ggt Gly	cac His	agg Arg	aga Arg 75	gaa Glu	ggc Gly	aat Asn	atc Ile	caa Gln 80	tat Tyr	tta Leu	ttt Phe	ctg Leu	gag Glu 85	tac Tyr	tgt Cys	295
agt Ser	gga Gly	gga Gly 90	gag Glu	ctt Leu	ttt Phe	gac Asp	aga Arg 95	ata Ile	gag Glu	cca Pro	gac Asp	ata Ile 100	ggc Gly	atg Met	cct Pro	343
gaa Glu	cca Pro	gat Asp	gct Ala	cag Gln	aga Arg	ttc Phe	ttc Phe	cat His	caa Gln	ctc Leu	atg Met	gca Ala	ggg Gly	gtg Val	gtt Val	391

105 110 115

	_	cat His								-					439
	_	ttg Leu-	-	_		-									487
_		gta Val						_		-					535
-		act Thr 170				-	_		_						583
		gca Ala	-		-	-	_			_			-		631
		ctc Leu													679
		tat Tyr													727
		atc Ile													775
		cca Pro 250		-	-										823
		aac Asn													871
		ggt Gly													919
		ttg Leu												Asn	967
	_	tac Tyr		-		_		_		_		-		tta Leu	1015
	_		-					-		_	_		Gly	agc Ser	1063

		-			tgt Cys		-		_		_		_	_		1111
					tcc Ser 365											1159
_	_		_		ttt Phe			-	-	_	_					1207
					tgt Cys											1255
					act Thr								Asn			1303
					aat Asn	-		-	_	-	-			_	-	1351
					aag Lys 445											1399
					aag Lys											1447
	tgg ctt cct gcc aca tgatcggacc atcggctctg gggaatcctg gtgaatatag Trp Leu Pro Ala Thr 475											1502				
tgctgctatg ttgacattat tcttcctaga gaagattatc ctgtcctgca aactgcaaat agtagttcct gaagtgttca cttccctgtt tatccaaaca tcttccaatt tattttgttt gttcggcata caaataatac ctatatctta attgtaagca aaactttggg gaaaggatga atagaattca tttgattatt tcttcatgtg tgtttagtat ctgaatttga aactcatctg gtggaaacca agtttcaggg gacatgagtt ttccagcttt tatacacacg tatctcattt ttatcaaaac attttgttt										1562 1622 1682 1742 1802 1821						
<210> 2 <211> 476 <212> PRT <213> Homo sapiens																
	0> 2 Ala	Val	Pro	Phe	Val	Glu	Asp	Trp	Asp	Leu	Val	Gln	Thr	Leu	Gly	
1 Glu	Gly	Ala	Tyr 20	Gly	Glu	Val [.]	Gln	Leu 25	10 Ala		Asn	Arg	Val		Glu	
Glu	Ala	Val 35		Val	Lys	Ile	Val 40		Met	Lys	Arg	Ala 45	Val		Cys	
Pro	Glu		Ile	Lys	Lys	Glu		Суѕ	Ile	Asn	Lys	Met	Leu	Asn	His	

55 60 Glu Asn Val Val Lys Phe Tyr Gly His Arg Arg Glu Gly Asn Ile Gln Tyr Leu Phe Leu Glu Tyr Cys Ser Gly Gly Glu Leu Phe Asp Arg Ile Glu Pro Asp Ile Gly Met Pro Glu Pro Asp Ala Gln Arg Phe Phe His 100 105 Gln Leu Met Ala Gly Val Val Tyr Leu His Gly Ile Gly Ile Thr His 120 125 Arg Asp Ile Lys Pro Glu Asn Leu Leu Asp Glu Arg Asp Asn Leu 140 135 Lys Ile Ser Asp Phe Gly Leu Ala Thr Val Phe Arg Tyr Asn Asn Arg 150 155 Glu Arg Leu Leu Asn Lys Met Cys Gly Thr Leu Pro Tyr Val Ala Pro 170 165 Glu Leu Leu Lys Arg Arg Glu Phe His Ala Glu Pro Val Asp Val Trp 185 Ser Cys Gly Ile Val Leu Thr Ala Met Leu Ala Gly Glu Leu Pro Trp 200 Asp Gln Pro Ser Asp Ser Cys Gln Glu Tyr Ser Asp Trp Lys Glu Lys ,220 215 Lys Thr Tyr Leu Asn Pro Trp Lys Lys Ile Asp Ser Ala Pro Leu Ala 230 235 Leu Leu His Lys Ile Leu Val Glu Asn Pro Ser Ala Arg Ile Thr Ile 245 250 Pro Asp Ile Lys Lys Asp Arg Trp Tyr Asn Lys Pro Leu Lys Lys Gly 265 Ala Lys Arg Pro Arg Val Thr Ser Gly Gly Val Ser Glu Ser Pro Ser 280 Gly Phe Ser Lys His Ile Gln Ser Asn Leu Asp Phe Ser Pro Val Asn 295 300 Ser Ala Ser Ser Glu Glu Asn Val Lys Tyr Ser Ser Ser Gln Pro Glu 310 Pro Arg Thr Gly Leu Ser Leu Trp Asp Thr Ser Pro Ser Tyr Ile Asp 330 Lys Leu Val Gln Gly Ile Ser Phe Ser Gln Pro Thr Cys Pro Asp His 345 Met Leu Leu Asn Ser Gln Leu Leu Gly Thr Pro Gly Ser Ser Gln Asn 360 Pro Trp Gln Arg Leu Val Lys Arg Met Thr Arg Phe Phe Thr Lys Leu 380 375 Asp Ala Asp Lys Ser Tyr Gln Cys Leu Lys Glu Thr Cys Glu Lys Leu 390 395 Gly Tyr Gln Trp Lys Lys Ser Cys Met Asn Gln Val Thr Ile Ser Thr 405 410 Thr Asp Arg Arg Asn Asn Lys Leu Ile Phe Lys Val Asn Leu Leu Glu 425 Met Asp Asp Lys Ile Leu Val Asp Phe Arg Leu Ser Lys Gly Asp Gly 440 Leu Glu Phe Lys Arg His Phe Leu Lys Ile Lys Gly Lys Leu Ile Asp 455 Ile Val Ser Ser Gln Lys Val Trp Leu Pro Ala Thr 470

<210> 3

<211> 18

<212> RNA

```
<213> Artificial Sequence
<220>
<223> generic RNA
<221> misc feature
<222> (1)...(18)
<223> n = A, U, C \text{ or } G
<400> 3
nnnnnnnuh nnnnnnn
                                                                      18
<210> 4
<211> 39
<212> RNA
<213> Artificial Sequence
<220>
<223> theoretical ribozyme
<221> misc feature
<222> (1)...(39)
<223> n = A, U, C or G
<400> 4
nnnnnnncu gaugagcaug agcaugcgaa annnnnnn
                                                                      39
<210> 5
<211> 1821
<212> RNA
<213> Homo sapiens
<400> 5
ggccggacag uccgccgagg ugcucggugg agucauggca gugcccuuug uggaagacug
                                                                      60
ggacuuggug caaacccugg gagaaggugc cuauggagaa guucaacuug cugugaauag
                                                                     120
aguaacugaa gaagcagucg cagugaagau uguagauaug aagcgugccg uagacugucc
                                                                     180
agaaaauauu aagaaagaga ucuguaucaa uaaaaugcua aaucaugaaa auguaguaaa
                                                                     240
auucuauggu cacaggagag aaggcaauau ccaauauuua uuucuggagu acuguagugg
                                                                     300
aggagagcuu uuugacagaa uagagccaga cauaggcaug ccugaaccag augcucagag
                                                                     360
auucuuccau caacucaugg cagggguggu uuaucugcau gguauuggaa uaacucacag
                                                                     420
ggauauuaaa ccagaaaauc uucuguugga ugaaagggau aaccucaaaa ucucagacuu
                                                                     480
uggcuuggca acaguauuuc, gguauaauaa ucgugagcgu uuguugaaca agaugugugg
                                                                     540
600
ugauquuugg uccuguggaa uaguacuuac ugcaaugcuc gcuggagaau ugccauggga
                                                                     660
ccaacccagu gacagcuguc aggaguauuc ugacuggaaa gaaaaaaaa cauaccucaa
                                                                     720
cccuuqqaaa aaaaucgauu cugcuccucu agcucugcug cauaaaaucu uaguugagaa
                                                                     780.
uccaucagca agaauuacca uuccagacau caaaaaagau agaugguaca acaaaccccu
                                                                     840
caagaaaqqq qcaaaaaqqc cccqaqucac uucaqquqqu ququcaqaqu cucccaquqq
                                                                     900
auuuucuaag cacauucaau ccaauuugga cuucucucca guaaacagug cuucuaguga
                                                                     960
agaaaaugug aaguacucca guucucagcc agaaccccgc acaggucuuu ccuuauggga
                                                                    1020
vaccageeee ucavacavug avaaauuggu acaagggave agevuuveee ageeeacavg
                                                                    1080
uccugaucau augcuuuuga auagucaguu acuuggcacc ccaggauccu cacagaaccc
                                                                    1140
cuggcagcgg uuggucaaaa gaaugacacg auucuuuacc aaauuggaug cagacaaauc
                                                                    1200
uuaucaaugc cugaaagaga cuugugagaa guugggcuau caauggaaga aaaguuguau
                                                                    1260
gaaucagguu acuauaucaa caacugauag gagaaacaau aaacucauuu ucaaaquqaa
                                                                    1320
uuuguuagaa auggaugaua aaauauuggu ugacuuccgg cuuucuaagg gugauggauu
                                                                    1380
ggaguucaag agacacuucc ugaagauuaa agggaagcug auugauauug ugagcagcca
                                                                    1440
```

gaagguuugg	cuuccugcca	caugaucgga	ccaucggcuc	uggggaaucc	uggugaauau	1500
agugcugcua	uguugacauu	auucuuccua	gagaagauua	uccuguccug	caaacugcaa	1560
auaguaguuc	cugaaguguu	cacuucccug	uuuauccaaa	caucuuccaa	uuuauuugu	1620
uuguucggca	uacaaauaau	accuauaucu	uaauuguaag	caaaacuuug	gggaaaggau	1680
gaauagaauu	cauuugauua	uuucuucaug	uguguuuagu	aucugaauuu	gaaacucauc	1740
ugguggaaac	caaguuucag	gggacaugag	uuuuccagcu	uuuauacaca	cguaucucau	1800
uuuuaucaaa	acauuuuguu	u				1821
					, ,	